

PHOTOGRAPHY

FAQ

Q Is it better to have optical image stabilisation built into the lens or the sensor?

A Optical image stabilisation reduces the likelihood of blur by sensing movement of the camera and adjusting for it mechanically. Some cameras do this by moving a lens element, while others mount the sensor on a moveable plate. We've seen good and bad examples of both types, with Nikon's sensor-shift and Panasonic's lens-based systems excelling in our tests.

The difference is more significant in SLR cameras. Sony's digital SLRs and some Olympus and Pentax models use sensor-shift stabilisation, which works with any lens fitted to the camera. Canon and Nikon's latest consumer SLRs come with stabilised kit lenses, but image stabilisation is lost if you want to use a different, non-stabilised lens.

Ben Pitt

Music and photography expert

ben@computershopper.co.uk

GE E840S

★★★★

£110 inc VAT

From www.greatdigitaldeals.co.uk

General Electric (GE) makes everything from jet engines to theme parks, and now it makes digital cameras, too. More accurately, the GE brand name has been licensed to a new company, General Imaging, which was set up in 2006 by a former president of Olympus Imaging Corporation. Newcomers to digital camera design often struggle to compete with the established leaders, but GE's pedigree shows promise.

So, too, does the design of the E840S. Its curved metal body is more stylish and feels sturdier than those of most £110 cameras. The 4x zoom lens and 2.7in, 230,400-pixel screen are great to see at this price, too. The Li-ion battery is welcome but its 241-shot life is disappointing, while shooting performance is fairly pedestrian. The layout of buttons and menus is straightforward and friendly, though, and casual users are unlikely to be kept waiting.

The E840S's face detection system sometimes struggled to spot faces, and when it did, it over-exposed them against dark backgrounds. Once you have pressed the shutter button, the camera waits until it identifies a beaming smile before it takes the picture.

We first saw this feature on Sony's DSC-T2 (see *What's New, Shopper* 243) and the lag of up to a second makes it more of a gimmick than a serious tool. Still, as gimmicks go, it's good fun. There's even blink detection, which warns you when the subject has blinked so you can take another shot. Panorama stitching is built in, too; we found that as long as the camera was horizontal, it worked superbly.

With such a comprehensive array of sophisticated features, it's

disappointing that some of the core features haven't been thought through. It isn't possible to silence the beep that accompanies every button press without also muting the shutter release sound. Meanwhile, the shutter release sound is out of sync with the actual shutter, which can lead to mistakes.

More worrying are the issues that relate directly to image quality. When shooting in low light in fully automatic mode, the camera uses slow ISO and shutter speeds, resulting in blur. The Stabilisation mode boosts both settings to reduce the problem, but not by enough. This is particularly disappointing, as images were reasonably clean and detailed even at the maximum ISO 1600 setting. Automatic white balance

wasn't great either, with photos taking on a strong yellow tint when shot under artificial light. Photos also tended to be a little soft, particularly towards the corners. None of these problems was fatal but they add up to slightly below-average quality for the price.

The E840S is by no means perfect, but its stylish design, fun features and low price are an attractive combination if image quality isn't a top priority.

Ben Pitt

SUMMARY

- ✓ Stylish design
- ✓ Sophisticated features
- ✗ Problematic image quality

DIGITAL CAMERA 8 megapixels (3,264x2,448), 4x optical zoom (36-144mm), SDHC slot (26MB internal), Li-ion battery, 96x56x21mm, 95g
PART CODE GDDGEE840S
DETAILS www.general-imaging.com

PERFORMANCE (see page 64)

Battery life **241 shots** -50% Reference +50% +100%

Also consider...

PENTAX Optio A30

★★★★★

£132 inc VAT

From www.purelygadgets.co.uk

COMPUTER SHOPPER
BEST BUY

The Optio A30 has a 10-megapixel sensor and an optically stabilised 3x zoom lens. It's possible to set the maximum ISO speed in the Auto ISO mode, and this helps to reduce noise. This camera is quick to focus and images have warm, vibrant colours. Portraits have natural skin tones and highlights are not clipped.



DIGITAL CAMERA 10 megapixels (3,648x2,736), 3x optical zoom (38-114mm), SDHC slot (22MB internal), 710mAh Li-ion battery
PART CODE 19215
DETAILS www.pentax.co.uk
FULL REVIEW Dec 2007

Battery life **283 shots** -50% Reference +50% +100%

CANON EOS 400D

★★★★★

£499 inc VAT

From www.johnlewis.com

COMPUTER SHOPPER
BEST BUY

The successor to the hugely popular EOS 350D, Canon's EOS 400D is the best affordable digital SLR camera on the market. Incredibly fast focusing, a high capture rate and brilliant image quality from the 10.1-megapixel sensor all make it really hard not to love this camera. For photography enthusiasts who want to upgrade from a film SLR or compact camera, this is undoubtedly the model to get.



DIGITAL CAMERA 10.1 megapixels (3,888x2,592), 3x optical zoom (18-55mm), CompactFlash slot, li-ion battery
PART CODE 12378009AA
DETAILS www.canon.co.uk
FULL REVIEW Feb 2007

Battery life **506 shots** -50% Reference +50% +100%

RICOH R8

★★★

£211 inc VAT

From www.purelygadgets.co.uk

Ricoh's R-series has been quietly stacking up favourable reviews in *Computer Shopper*, with an appealing mix of a wide-angle 7.1x zoom lens, compact design, fast performance and dependable image quality. This latest revision resolves some of the criticisms we levelled at previous models, ditches the Caplio brand name and ups the resolution to 10 megapixels.

The redesigned body is much smarter and sturdier than those of its predecessors. It looks like a serious photographic tool, with clean lines and a dash of brushed aluminium across the top. The lens makes less noise when focusing and zooming – although it's still far from quiet – and the zoom has two speeds of travel, which makes fine adjustments easier.

The 2.7in screen has a 460,000-pixel resolution, the most we have ever seen on a digital camera. Strangely, the onscreen icons and text look blocky, as if Ricoh didn't get round to redesigning them for the new screen. Image previews and reviews are as detailed as the eye can see. Other new features include the ability to adjust the white balance and mid-tone brightness (gamma) of stored photos and – oddly – to take square pictures.

The controls have improved, too, with a mode dial and mini-joystick that are faster to use than the switch and five-way pad on previous models. The menus are neat and efficient; there's quick access to ISO speed, white balance and

exposure value (EV) compensation settings. The lack of manual exposure is disappointing at this price, though. Performance is impressive at 1.7 seconds between shots and a 1.4fps continuous mode. However, these are slower than the 7.1-megapixel R6's 1.4 seconds and 2.6fps speeds – a downside of having more pixels to manipulate.

The R8's 7.1x zoom can't match the 10x zooms of other compacts such as Panasonic's TZ range, Canon's SX100 IS and Sony's DSC-H3 (see *What's New, Shopper* 241) although the 28mm wide-angle position is wider than Canon and Sony's lenses can manage. Bigger zooms increase the need for optical image stabilisation. Sadly, the R8's sensor-shift system isn't as effective as others, keeping only 35 per cent of shots sharp at a 100mm focal length and 1/30s shutter speed.

The R8's 10-megapixel resolution isn't surprising in 2008, but what is surprising is that the sensor diameter is just 1/2.3in. All other 10-megapixel compact cameras we've seen use 1/1.8in sensors, which have 60 per cent more surface area than the R8's sensor. Less surface area means less accurate measurements and more noise. Sure enough, noise was almost always a problem with the R8's output. The camera used heavy processing to keep visible noise at bay, but suppressed fine detail and gave photos a slightly artificial, painted appearance when viewed up



close. Sharp lines looked spidery, dense textures such as foliage were messy and subtle skin textures were lost. These problems were visible in bright conditions at ISO 100 and painfully obvious in lower light and at higher ISO values. Heavy digital sharpening tried to exploit the sensor's potential for detail but exaggerated the spidery edges. These problems weren't visible when viewing photos shrunk-to-fit on a PC monitor or in 4x6in prints, but this defeats the object of having a high-resolution sensor. Colour accuracy was generally fine but the flash gave skin tones a blue tint. Manual ISO speeds were required for sensible shutter speeds in low light.

The R8 shares many qualities with Sony's H3: they both offer big zooms in small packages, perform well, have below-par image stabilisation and take photos that lack detail. Most of their differences lie in the H3's favour, with more reliable exposures, a bigger zoom, a manual exposure mode, longer battery life and lower price at around £160. However, the R8's wide-angle setting shouldn't be underestimated. It lags behind most other 10-megapixel cameras for detail, but it's a little better than the H3 in this respect. That's not enough for a recommendation, though, and you can get better image quality at this price.

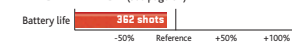
Ben Pitt

SUMMARY

- ✓ Strong collection of features
- ✗ High resolution is a hindrance
- ✗ Ineffective image stabilisation

DIGITAL CAMERA 10 megapixels (3,648x2,736), 7.1x optical zoom (28-200mm), SDHC slot (24MB internal), Li-ion battery, 58x102x26mm, 168g
PART CODE ICR8S
DETAILS www.ricohpmc.com

PERFORMANCE (see page 64)



PANASONIC Lumix DMC-FZ18

★★★★★

£215 inc VAT

From www.fotosense.co.uk

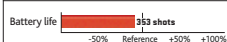
COMPUTER SHOPPER
BEST BUY

Panasonic's DMC-FZ18 has a huge 18x optically stabilised zoom lens and is capable of stunning photos. It has a comprehensive range of controls and is fairly fast to start up and take shots.

The 8-megapixel sensor may not have the highest resolution, but the DMC-FZ18 comes close to entry-level DSLR quality for less money. It's the best super-zoom digital camera around.



DIGITAL CAMERA 8 megapixels (3,264x2,448), 18x optical zoom (28-504mm), SDHC slot (27MB internal), Li-ion battery
PART CODE DMC-FZ18EB-K
DETAILS www.panasonic.co.uk
FULL REVIEW Mar 2008



CANON PowerShot A720 IS

★★★★★

£120 inc VAT

From www.camerabox.co.uk

COMPUTER SHOPPER
BEST BUY

The A720 IS has a 6x optical zoom, which makes it heavier than most compact cameras. There's a wealth of options, including full control over aperture, shutter and ISO speed plus focus. Excellent feedback on the 2 1/2in screen helps you choose the best settings.

This is an unbeatable deal for anyone with artistic aspirations on a limited budget.



DIGITAL CAMERA 8.1 megapixels (3,264x2,448), 6x optical zoom (35-210mm), SDHC slot (16MB card supplied), 2x AA batteries
PART CODE 2092B007AA
DETAILS www.canon.co.uk
FULL REVIEW May 2008



SAMSUNG NV8

PRICE CUT!

★★★★★

£90 inc VAT

From www.play.com

COMPUTER SHOPPER
BEST BUY

Samsung's 19mm-thick NV8 is a superb compact camera. It has full manual control, although it lacks priority modes and manual focus. It's fast, with quick auto-focus and a great screen that lets you see when your subject is in focus. Shots are sharp and reproduce fine textures faithfully. Noise isn't a problem thanks to the large sensor, and colours are accurate. At this price, it's a bargain.



DIGITAL CAMERA 8 megapixels (3,264x2,448), 3x optical zoom (34-102mm), SDHC slot (20MB internal), Li-ion battery
PART CODE 880108943538
DETAILS www.samsungcamera.com/uk
FULL REVIEW Apr 2008



KODAK EasyShare M763

★★★★

£90 inc VAT

From www.kodak.com

It's only four months since we reviewed Kodak's M753, but its heir is already here. The minimal differences in their designs include a slightly bigger screen at 2.7in and 230,000 pixels, and a choice of red, black or silver finishes. The resolution has crept up from 7.0 to 7.2 megapixels, and the maximum ISO speed from 1250 to 1600. On Kodak's website, the M763 is accompanied by an HD logo, but this merely refers to the camera's ability to take photos at the 1,920x1,080 resolution used by HD video devices. Video capture is limited to 640x480 at 15fps or 320x240 at 30fps.

The controls are simple but the ISO speed setting is buried in the menus. This is a shame as the Auto ISO mode is reluctant to raise ISO speeds to avoid blur in low light. Performance is in line with that of the pedestrian M753, taking almost four seconds between shots. You can speed it up by fully pressing the shutter button rather than half-pressing it and waiting for the camera to focus, but this results in out-of-focus shots. Continuous shooting lasts for just three shots before the camera needs to take a rest.



Image quality hasn't noticeably improved either. Pictures looked impressively sharp, although the lack of fine detail in textured areas suggests that this had more to do with image processing than superior optics. Close inspection also revealed JPEG compression artefacts, particularly in low light, when noise became more significant. This is inevitable considering the small 1MB files the camera produces at its highest quality setting; sadly, there's no facility to adjust the amount of compression. Automatic exposures

were superbly balanced, and the lack of face detection didn't diminish the success rate of portrait shots.

It's great to find an ultra-compact camera for just £90 and the M763 is unlikely to disappoint casual photographers who are looking for a bargain. However, bargain hunters should still head directly to Samsung's NV8 (see 'Also consider...', page 41).

Ben Pitt

SUMMARY

- ✓ Inexpensive
- ✗ Mediocre performance
- ✗ JPEG compression artefacts visible

DIGITAL CAMERA 7.2 megapixels (3,088x2,320), 3x optical zoom (34-102mm), SDHC slot (16MB internal), Li-ion battery, 91x57x21mm, 115g
PART CODE 1908250

DETAILS www.kodak.com

PERFORMANCE (see page 64)

Battery life **362 shots** -50% Reference +50% +100%

GENIUS G-Shot P6533

★★

£80 inc VAT

From www.amazon.co.uk

Genius specialises in PC peripherals, but also makes a range of 10 digital cameras. The P6533 costs just £80 but is one of the pricier, more sophisticated models. Genius seems to be avoiding the highly competitive £100+ market, but most of the big brands have cameras at around £80. As such, the P6533 has some tough standards to live up to.

The camera feels robust but the red colour scheme can't hide a frumpy design. The lack of face detection and SDHC support for memory cards over 2GB simply add to the dated feel. The experience gets worse when you switch it on, with a six-second delay before you can take a photo, and five seconds between subsequent shots. This is partly down to the slow autofocus, which takes up to a second to get going and between two and three seconds to lock on to its subject. At least the controls and menus are well organised and quick to navigate. Continuous shooting lasts for just three images and video capture is limited to 320x240 pixels, both of which suggest an underpowered processor.



After such a bad first impression we didn't hold out much hope for the P6533's image quality, but it was surprisingly good. Details were a little soft on close inspection but we put this down to gentler sharpening than most cameras use. However, corner focus was sometimes poor, which is a fault of the lens. Exposures were generally well judged and the automatic white balance coped well with artificial light and flash photography. However, a tripod or the flash was necessary in

low light, as the maximum ISO of 400 is too slow for dimly lit handheld shots. Noise was reasonably understated, but complex textures and darker parts of photos exhibited colour noise, even in well-lit scenes.

The P6533 isn't a bad camera but we still recommend Samsung's NV8 (see 'Also consider...' on page 41) as it costs just £10 more and is better in almost every respect.

Ben Pitt

SUMMARY

- ✓ Decent image quality for the price
- ✗ Poor performance
- ✗ Basic features

DIGITAL CAMERA 6 megapixels (2,816x2,112), 3x optical zoom (34-102mm), SD slot (16MB internal), 2x AA batteries, 90x62x27mm, 130g
PART CODE B00154J152

DETAILS www.geniusnet.com

PERFORMANCE (see page 64)

Battery life **391 shots** -50% Reference +50% +100%

CHOOSING A... Compact Digital Camera

Follow the steps to find your ideal specs

RESOLUTION: 7 megapixels

ZOOM: 3x optical (35-105mm)

MONITORING: 2in, 100,000-pixel LCD screen

SUPPLIED MEMORY: 10MB internal

BATTERIES: 2x AA disposable

Recommended minimum in grey

1 A digital camera with the specifications shown in grey will suit those who want to take pictures to view on their PC and create 7x5in prints. It should cost around £80, but there may be hidden downsides such as slow performance and very basic user controls.

2 Spend more and you'll get a higher resolution. A 10-megapixel sensor has the potential to produce sharp prints up to A3 size, but only if it and the lens are suitably high quality. There are 12-megapixel compact cameras available, but we've yet to see one that's significantly better than 8-megapixel models. Most people don't print enlargements so a 7-megapixel sensor is sufficient.

3 A 3x zoom lens gives reasonable scope for framing your shots, but a larger range can do wonders for your photographic skills. Some compact cameras manage a 6x zoom while a few go as far as 10x. However, big zooms need optical image stabilisation to avoid blur at extreme settings. Alternatively, consider a wide-angle lens, denoted by a 28mm or lower minimum focal length.

4 Big LCD screens are a treat to use but they don't always offer sharper detail. A 2½in screen is common even in the budget market, but only the best have resolutions of 200,000 or more pixels.

5 Consider hidden costs: budget £20 for a 1GB memory card, as the bundled memory will never be enough. If your chosen camera doesn't have rechargeable batteries, budget an extra £15 to buy a set.

6 Don't forget that specifications tell you very little about image quality; you'll need to read our reviews for that. In a compact camera, we believe that the user shouldn't have to grapple with complicated controls to get great images in all lighting conditions.